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#### UNITED STATES PATENT AND TRADEMARK OFFICE

# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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Ex parte BERNARD A. TRAVERSAT, THOMAS E. SAULPAUGH, MICHAEL J. DUIGOU and GREGORY L. SLAUGHTER

Appeal 2008-1930 Application 09/653,227 Technology Center 2400

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Decided: March 20, 2009

Before JAY P. LUCAS, ST. JOHN COURTENAY III, and CAROLYN D. THOMAS, *Administrative Patent Judges*.

COURTENAY, Administrative Patent Judge.

#### **DECISION ON APPEAL**

<sup>&</sup>lt;sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 CFR § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Data (electronic delivery).

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-6, 8-13, 15-21, 23-31, 33-36, 38-45, 47, 49-53, 55-59, 61-67, 69, 70 and 72. The Examiner indicated in the Final Rejection (mailed April 10, 2007) that claims 14, 22, 37, 46, 54, 60, 68 and 71 would be allowable if rewritten in independent form (Final Rejection 3). Claims 7, 32, and 48 are cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm in part.

#### THE INVENTION

The disclosed invention relates generally to distributed computing environments including Web-centric and Internet-centric distributed computing environments. More particularly, the present invention relates to a heterogeneous distributed computing environment based upon a message passing model using message gates to perform message authentication in communications between network clients and services. (Spec. 1, Il. 27-31).

Independent claim 1 is illustrative:

1. A method for communicating in a distributed computing environment, comprising:

a client accessing an authentication service to obtain an authentication credential to use a first service;

determining client capabilities for said client, wherein said client capabilities are capabilities of said first service that said client is permitted to use;

binding said client capabilities to said authentication credential;

said client sending a first message to said first service, wherein said first message includes said authentication credential

said first service using said authentication service to authenticate said authentication credential received in said first message; and

said first service responding to said first message if said authentication credential in said first message is determined to be authentic as from said client.

#### THE REFERENCES

The Examiner relies upon the following references as evidence in support of the anticipation and obviousness rejections:

Adams US 6,718,470 B1 Apr. 6, 2004 (filed Jun. 5, 1998)

Czerwinski "An Architecture for a Secure Service Discovery Service." Aug. 15, 1999, PP. 24-25.

#### THE REJECTIONS

- 1. The Examiner rejected claims 1, 2, 8-13, 15-17, 20, 21, 23-28, 33-36, 38-43, 47, 49-51, 56-59, 61-63, 66, 67, 69, 70 and 72 under 35 U.S.C. § 102(e) as being anticipated by Adams.
- 2. The Examiner rejected claims 3-6, 18, 19, 29-31, 44-45, 52, 53, 55, 64, and 65 under 35 U.S.C. § 103(a), as being unpatentable over Adams in view of Czerwinski.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> The Examiner withdrew the rejection of claims 1-6, 8-31, 33-47 and 49-72 under the judicially created doctrine of obviousness-type double-patenting.

Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Reversal of claims 2-6, 9, 10, 12, 13, 17-21, 23-26, 28-31, 34-36, 40, 47, 52, 53, 55, 58, 59, 61, 63-65, 67, and 69, 70, and 72

At the outset, we reverse the Examiner's rejection of independent claims 17, 58, and 69 for the reasons discussed *infra*. Because claims 20, 21, and 23-26 depend upon claim 17, claims 59 and 61 depend from claim 58 and claims 70 and 72 depend from claim 69, we also reverse the Examiner's rejections of claims 20, 21, 23-26, 59, 61, 70 and 72.

Regarding independent claim 17, we find Appellants' argument persuasive that Adams does not disclose the limitations of "said service advertisement includes an address for an authentication service." (App. Br. 36). In particular, we find that Adams fails to disclose a website including an address for the privilege data selector as asserted by the Examiner, and Adams is silent with regards to a service advertisement for a relying party unit that includes an address. We also reverse the Examiner's rejection of dependent claims 2, 28 and 63-65 which similarly recite a "service address that includes an address for an authentication service" for the same reasons discussed *supra* regarding claim 17.

The Examiner consolidated the original four rejections into the two rejections listed above.

We also reverse the rejection of claims 52, 53 and 55 for the same reasons discussed above regarding claim 17. In addition, the Examiner has not shown, nor have we found, that Czerwinski cures the deficiencies of Adams discussed *supra*.

We also reverse dependent clams 3-6, 18, 19, and 29-31 which depend from claims 2, 17, and 28 discussed *supra*. In particular, the Examiner has not shown, nor have we found, that Czerwinski cures the deficiencies of Adams discussed *supra*.

Regarding independent claims 58 and 69, we find Appellants' arguments persuasive that Adams does not disclose the limitation of generating a message gate for accessing the first service. (App. Br. 67). In particular, we find that the "suitable link" taught in Adams, is in fact, not analogous to the claimed "message gate" recited in claim 58 as asserted by the Examiner. We broadly but reasonably construe the claimed message gate as a message endpoint for a client or service in a distributed computing environment. As such, it is our view that the "suitable link" cited by the Examiner does not include an embedded credential, as claimed. Further, it is our view that the "suitable link" cited by the Examiner is too nebulous to support a rejection under §102. We also reverse the Examiner's rejection of dependent claims 12-13, 36, and 67 which similarly recite a "message gate for accessing the first service" for the same reasons discussed *supra* regarding claims 58 and 69.

We also reverse the Examiner's rejection of dependent claims 9, 10, 34, and 35 because we find Appellants' arguments persuasive that Adams does not disclose the limitation of a "capability token," as recited in claims 9

and 34. (See App. Br. 31). In particular, we do not agree with the Examiner's assertion that the "pre-qualification privilege data" described in Adams discloses the claimed "capability token" recited in claims 9 and 34. The privilege data as described in Adams is data representing a user position in a company, transaction signing limits, or other suitable data. (Adams col. 3, 11. 38-41). In contrast, we broadly but reasonably construe a capability token as a tangible credential (token) that is used to define the *capabilities* of the service the client is permitted to use. (*See e.g.*, App. Br. 31, Spec. 97, 11. 9-15).

We also reverse the Examiner's rejection of dependent claim 40. More particularly we find the Appellants' arguments persuasive that Adams does not disclose that the client device is configured to couple to a network *via a wireless connection*, as recited in claim 40. (App. Br. 60). We particularly note that Adams is silent with regards to the claimed "wireless connection." Further, we find that the "suitable link" disclosed in Adams is too nebulous to anticipate the claimed wireless connection under § 102.

Lastly, we *pro forma* reverse the Examiner's rejection of dependent claim 47 as being anticipated by Adams. Claim 47 (rejected under §102) depends upon claim 44 that the Examiner rejected under 35 U.S.C. § 103. Therefore, we find this "inverted" rejection to be improper on its face.

#### **GROUPING OF CLAIMS**

The remaining claims are grouped as follows:

(1) Appellants argue claims 1, 8, 15, and 16 as a group and present similar arguments for claims 27, 33, 38, 39, 41, 42, 43, 49, 50, 51, 56, 57,

- 62, and 66. (App. Br. 24-25, 55-56, 61-63, 69-70). We will, therefore, treat claims 8, 15, 16, 27, 33, 38, 39, 41, 42, 43, 49, 50, 51, 56, 57, 62, and 66 as standing or falling with claim 1.
  - (2) Appellants separately argue claim 11 (id. at 32).
  - (3) Appellants separately argue claim 44 (*id.* at 82).
  - (4) Appellants separately argue claim 45 (*id.* at 82).

We accept Appellants' grouping of the claims. See 37 C.F.R. § 41.37(c)(1)(vii).

#### FINDINGS OF FACT

In our analysis *infra*, we rely on the following findings of fact (FF) that are supported by a preponderance of the evidence:

#### Adams

- 1. Adams discloses that a centralized privilege data selector 500 determines whether there are any matching attribute certificates or privilege data within attribute certificates that satisfy the privilege test criteria data communicated by the relaying party unit. (Col. 6, Il. 57-61).
- 2. Adams discloses that the centralized privilege data selector generates pre-qualification privilege data based on the subscriber identification data. (Col. 6, 1l. 52-57).
- 3. Adams discloses that the attribute certificate selector 202 retrieves subscriber certificates or other certificates containing data representing a subscriber's unit's privilege status. Matching (associated) privilege data is sent as pre-qualification privilege data. (Col. 5, 11. 19-29).

- 4. Adams discloses that a pre-qualification privilege data verifier 106 retrieves the attribute certificate from the privilege test criteria data provider and compares this information to the received pre-qualification privilege data for consistency. (Col. 5, Il. 47-54).
- 5. Adams discloses that any matching attribute certificates are sent as pre-qualification privilege data. The relaying party unit performs pre-qualification privilege verification. (Col. 6, ll. 61-67).
- 6. Adams discloses a pre-qualification privilege data verifier that compares the privilege test criteria data with the pre-qualification privilege data prior to granting privilege to the subscriber unit. (Col. 7, 11. 5-9).

#### Czerwinski

7. Czerwinski teaches that services encode their service metadata as XML documents, and that the clients specify their queries using the XML template. (25 § 2.3).

#### PRINCIPLES OF LAW

"[T]he examiner bears the initial burden on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability. If that burden is met, the burden of coming forward with evidence or argument shifts to the applicant." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

Therefore, we look to Appellants' Briefs to show error in the proffered *prima facie* case.

#### Claim Construction

"[T]he PTO gives claims their 'broadest reasonable interpretation." *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)).

#### **Anticipation**

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim." *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference. However, this is not an "ipsissimis verbis" test. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

#### **Obviousness**

In rejecting claims under 35 U.S.C. § 103, "[w]hat matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under § 103." *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007). To be nonobvious, an improvement must be "more than the predictable use of prior art elements according to their established functions." *Id.* at 1740.

What a reference teaches is a question of fact. *In re Baird*, 16 F.3d 380, 382 (Fed. Cir. 1994); *In re Beattie*, 974 F.2d 1309, 1311 (Fed. Cir. 1992). The presence or absence of a motivation to combine references in an obviousness determination is a pure question of fact. *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000).

## Appellants' Contentions

In the Briefs, Appellants' arguments contest the Examiner's findings regarding specific claim limitations that we have incorporated in our statements of issues, *infra*.

Section 102 rejection of claims 1, 8, 15, 16, 27, 33, 38, 39, 41, 42, 43, 49, 50, 51, 56, 57, 62, and 66

Appellants contend that the cited references fail to teach or suggest the limitations of determining client capabilities for a client; binding the client capabilities to the authentication credential; and using the authentication service to authenticate the authentication credential. (App. Br. 24, 26, and 27)

#### **ISSUES**

We consider the following issues that flow from the contentions of the Appellants and the Examiner:

- (1) Have Appellants shown the Examiner erred in determining that Adams discloses determining client capabilities for a client, as recited in claim 1?
- (2) Have Appellants shown the Examiner erred in determining that Adams discloses binding said client capabilities to said authentication credential, as recited in claim 1?
- (3) Have Appellants shown the Examiner erred in determining that Adams discloses the limitation of the first service using said authentication service to authenticate said authentication credential received in said first message, as recited in claim 1?

#### **ANALYSIS**

#### Claim Construction

At the outset, we note that claim 1 recites "client capabilities." We note that Appellants' Specification defines client capabilities as what a client is allowed to do. (Spec. 92-93). Thus, we broadly but reasonably interpret the limitation of "determining client capabilities" as determining what a client is allowed to do in the first service. We further note that the language of claim 1 recites "binding said client capabilities to said authentication credential." Since Appellants did not impart any special meaning to the term "binding," we broadly but reasonably interpret the term "binding" to be analogous to "attaching" or "associating."

As previously stated, Appellants contend that Adams fails to disclose the limitation of "determining client capabilities for a client." As noted above, we find that Adams discloses a centralized privilege data selector that *determines* whether there are any . . . privilege data, (FF 1). It is our view that "privilege data" is in fact an indication of what a client is allowed to do within the system described in Adams. Thus, we find that Adams discloses determining client capabilities (privilege data determined by the centralized privilege data selector), as recited in claim 1.

Appellants further contend that Adams fails to disclose "binding the client capabilities to the authentication credential." (App. Br. 26). As noted above, we find that Adams discloses that the attribute certificate selector 202 retrieves subscriber certificates or other certificates containing data representing a subscriber's unit's privilege status (client capabilities). Matching (associated) privilege data is sent as pre-qualification privilege

data. (FF 3). Thus, we find that Adams discloses binding said client capabilities (matching privilege data with subscriber certificates) to said authentication credential (pre-qualification privilege data).

Appellants also contend that Adams fails to disclose the limitation of "the first service using said authentication service to authenticate said authentication credential received in said first message," as recited in claim 1. (App. Br. 27) We disagree.

As discussed above, Adams discloses that the pre-qualification privilege data verifier retrieves the attribute certificate from the privilege test criteria data provider and compares this information to the received pre-qualification privilege data for consistency. (FF 4). Thus, based on the above, it is our view that Adams teaches that the subscriber unit 200, uses the attribute certificate selector 202 to perform the verification.

Based on the record before us we are not persuaded of error in the Examiner's finding of anticipation with respect to representative claim 1.

Therefore, we sustain the Examiner's rejection of representative claim 1, and claims 8, 15, 16, 27, 33, 38, 39, 41-43, 49, 50, 51, 56, 57, 62, and 66 that fall therewith, as being anticipated by Adams.

## Section 102 rejection of claim 11

We next consider the Examiner's rejection of claim 11 as being anticipated by Adams. Appellants contend that Adams fails to disclose the limitation of "where determining client capabilities is performed by the first service." (App. Br. 32).

<u>Issue</u>: Have Appellants shown the Examiner erred in determining that Adams discloses that the first service determines client capabilities?

As discussed above regarding claim 1, we find Adams teaches that the attribute certificate selector 202, which is a part of the subscriber unit 200 (first service), is utilized to determine client capabilities (retrieve privilege status). (*See* FF 3).

Based on the record before us, we do not find Appellants have shown error in the Examiner's prima facie case of anticipation. Accordingly, we sustain the Examiner's rejection of claim 11 as being anticipated by Adams.

### Section 103 rejection of claim 44

We next consider the Examiner's rejection of claim 44 as being unpatentable over Adams in view of Czerwinski. Appellants contend that Adams fails to disclose the limitation of "wherein the advertisement for the first service includes a data representation language schema defining a message interface for accessing the first service," as recited in claim 44.<sup>3</sup> (App. Br. 82).

<u>Issue</u>: (1) Have Appellants shown the Examiner erred in determining that the cited references teach or suggest the limitation of a data representation language schema defining a message interface for accessing the first service?

<sup>&</sup>lt;sup>3</sup> Appellants state that the arguments regarding the patentability of claim 44 are the same as those presented for claim 3, which begin on page 45 of the Brief. (App. Br. 82)

<u>Issue</u>: (2) Have Appellants shown that the Examiner erred in combining Adams and Czerwinski?

The Examiner contends that the cited references, most notably Czerwinski, teach that the XML format service description and client queries are used for communication between the client and the service. (Ans. 10) Further, Appellants admit that Czerwinski discloses use of XML, which may be used for client queries. (App. Br. 45). We find that Czerwinski teaches that the clients specify their queries using the XML template, and that services encode their service metadata as XML documents. (FF 7).

Thus, it is our view that Czerwinski teaches that XML is used to define a message interface (valid service descriptions) to add (define) service-specific information (information for accessing the service). (Czerwinski § 2.3, Il. 10-14)

Based on the record before us, we conclude that Appellants have not shown the Examiner erred in determining that the cited references teach and/or suggest the limitation of a data representation language schema defining a message interface for accessing the first service.

As noted above (Issue 2), Appellants further contend that the Examiner erred in combining Adams with Czerwinski.

It is our view that Appellants have not addressed the Examiner's finding that the artisan would have combined the teachings of Adams with Czerwinski because XML was well known in the art to provide greater flexibility as communication interfaces. Appellants merely argue that

neither reference teaches or suggests the above-noted limitations without providing any meaningful analysis that explains why the Examiner erred.

Therefore, we are not persuaded of error in the Examiner's rejection and sustain the § 103(a) rejection of claim 44 over Adams and Czerwinski.

## Section 103 rejection of claim 45

We next consider the Examiner's rejection of claim 45 as being unpatentable over Adams and Czerwinski. Appellants contend that the cited references fail to teach or suggest that the first message corresponds to a message defined in the data representation language schema, as recited in claim 45. (App. Br. 82)<sup>4</sup>

Appellants' arguments regarding the limitations of claim 45 are the same as those submitted for claim 44. (See App. Br. 51) Accordingly, the patentability of claim 45 is urged based on Appellants' arguments submitted for claim 44, which we do not find to be persuasive.

Therefore, we are not persuaded of error in the Examiner's rejection of claim 45. Accordingly, we sustain the Examiner's § 103(a) rejection of claim 45 over Adams and Czerwinski.

#### **CONCLUSIONS**

Based on the findings of facts and analysis above, we conclude the following:

<sup>&</sup>lt;sup>4</sup> Appellants state that the arguments regarding the patentability of claim 3 are the same as those presented for claim 5, which begin on page 49 of the Brief. (App. Br. 82) We will only address the limitations that are contained in both of claims 5 and 45.

Appellants have shown the Examiner erred in determining that the cited references disclose or suggest the limitation of said service address advertisement includes an address for an authentication service.

Appellants have shown the Examiner erred in determining that the cited references disclose or suggest the limitation of a message gate for accessing the first service.

Appellants have shown the Examiner erred in determining that the cited references disclose the limitation of a capability token.

Appellants have shown the Examiner erred in determining that the cited references disclose that the client device is configured to couple to a network via a wireless connection.

Appellants have not shown the Examiner erred in determining that Adams discloses determining client capabilities for a client.

Appellants have not shown the Examiner erred in determining that Adams discloses binding said client capabilities to said authentication credential.

Appellants have not shown the Examiner erred in determining that Adams discloses the limitation of the first service using said authentication service to authenticate said authentication credential received in said first message.

Appellants have not shown the Examiner erred in determining that Adams discloses that the first service determines client capabilities.

Appellants have not shown the Examiner erred in determining that the cited references teach or suggest the limitation of a data representation language schema defining a message interface for accessing the first service.

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Appellants have not shown that the Examiner erred in combining Adams and Czerwinski.

#### **DECISION**

The decision of the Examiner rejecting claims 2, 9, 10, 12, 13, 17, 20, 21, 23-26, 28, 34-36, 40, 47, 58, 59, 61, 63, 67, 69, 70, and 72 under 35 U.S.C. § 102(e) is reversed.

The decision of the Examiner rejecting claims 1, 8, 11, 15, 16, 27, 33, 38, 39, 41-43, 49-51, 56, 57, 62, and 66 under 35 U.S.C. § 102(e) is affirmed.

The decision of the Examiner rejecting claims 3-6, 18, 19, 29-31, 52, 53, 55, 64, and 65 under 35 U.S.C. § 103(a) is reversed.

The decision of the Examiner rejecting claims 44 and 45 under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. §1.136(a). See 37 C.F.R. § 1.136(a)(1)(iv).

## **AFFIRMED-IN-PART**

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